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ABSTRACT

Reported was a project in which 60 educable mentally retarded (EMR) and 30 educationally handicapped (EH) elementary school students were placed in regular classrooms to determine whether they could be effectively educated in those settings. Effective education was defined in terms of improvement in reading, mathematics, student and teacher acceptance, and self-concept. Students were provided with individually prescribed programs based on daily assessment and prescription by a resource teacher, who also worked with regular classroom teachers to coordinate pupils' programs with regular class activities. Regular classroom teachers attempted to help handicapped students feel that they were valuable class members. EMR Ss were reported to have made an average of 9 months growth in reading and 12 months growth in mathematics achievement. It was found that EH students made an average of 11 months growth in reading and 12 months growth in mathematics achievement. Osgood's Semantic Differential Scale showed no differences in teachers' overall perception of handicapped versus nonhandicapped students. On the Auditory Self Concept Measuring Instrument, 77% of the EMR students and 86% of the EH students were reported to have reached criterion level. When the Stick Figure Test was used to measure self concept, 96% of the EMR and 100% of the EH students were found to have reached criterion levels. (Author/GW)

ED 073592

CHILDREN

WITHOUT LABELS

E.S.E.A. Title III Project 1232

"Handicapped Children in the Regular Classroom"

EC 051 246E

Fountain Valley School District
Number One Lighthouse Lane
Fountain Valley, California 92708

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EDUCATION & WELFARE
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THE LOCALE

The Fountain Valley School District is located in Western Orange County and serves the communities of Fountain Valley and Huntington Beach. Fifty thousand people live in the nine square miles of the City of Fountain Valley, 95% of which own their own homes and have moved from adjacent areas. Thirty-six percent of the husbands in Fountain Valley have completed four or more years of college, 31% have completed from one to three years of college and 25% are high school graduates. In addition, 14% of the wives in the community have completed four or more years of college, 31% have completed from one to three years of college and 47% are high school graduates. According to a 1967 survey, 52% of the families living in Fountain Valley make from $10,000 to $15,000 per year, and 28% have incomes greater than $15,000 per year. Also, 7.8% of the families in the Fountain Valley area come from ethnic backgrounds including American Indian, Spanish surnames, Orientals and other minorities. Most of the families in Fountain Valley are employed in adjacent areas outside of the community. Nearly 50% of the husbands are in engineering, administrative or sales fields, while one-third of the wives work in secretarial, clerical, educational, medical health or sales. The unemployment rate in Fountain Valley, as of the 1970 census, was 5.6% which is highly influenced by current trends in the aerospace industry. Presently, there are approximately 360 families in the area receiving Welfare assistance. Although the Fountain Valley population is a relatively young group, the birth rates have been decreasing. This trend is consistent with the national averages. The area is presently 70% developed, and the remaining 30% to be developed will be mostly residential area comprised of both single and multiple housing units.

THE SCHOOL SYSTEM

The Fountain Valley School District encompasses 17 schools serving 11,000 students, grades K through 8. The District has grown from one to 17 schools in approximately ten years. The trend appears to be for a continuous increase in population for the next several years. The anticipated increase for enrollment during the 1972-73 school year is 3 percent. The current expense per pupil cost for the previous fiscal period was $680.97 per ADA. The District derives its income from Federal, State, County and Local levels.

HISTORICAL BACKGROUND

Prior to the introduction of the E.S.E.A. Title III Project, "Handicapped Children in the Regular Classroom," special classes existed for the education of Educable Mentally Retarded students and Educationally Handicapped students. Programs for the Educationally Handicapped were housed at each of the schools in the district. The Educable Mentally Retarded students were bussed to two centrally located schools where four classes were housed, two at each school.

Parents, teachers and administrators were concerned by poor academic progress as well as poor adaptive behavior manifested by the students in our special education programs. The Educable Mentally Retarded students made on the average of three months academic growth during the school year, while the Educationally Handicapped students obtained a mean growth of approximately four months. There was little acceptance of the handicapped students by their non-handicapped peers. In June, 1969, Special Education teachers, regular classroom teachers and parents were consulted regarding alternative approaches to Special Education. From these meetings, a new model emerged. This model was implemented in the fall.

In September, 1969, the Educable Mentally Retarded and Educationally Handicapped students at Fulton School were placed in regular classes with specialized services provided by special education resource personnel. In February of the same academic year, approximately one-half of the handicapped students at Gisler School were placed in regular classes with specialized resource help made available to these students. The other one-half of the students remained in a readiness program housed in self-contained classes at Gisler School. As the students became "ready," as determined by their acquisition of certain behavioral traits considered by the project staff to be essential for successful integration into the regular classroom program, they were integrated. All but two students were integrated at the termination of the 1969-70 school year. In September, 1970, the entire district-wide handicapped population was integrated into the regular classroom. Each school had a special education resource teacher for the Educationally Handicapped. The more severely handicapped were brought to the two project schools which had more resource services available to serve these children. During the 1972-73 school year, four schools established as supplementary education centers were modeled after the two project schools. They provide services for the more severely handicapped children who could not be helped at their neighborhood schools. Private schools and community agencies were invited to participate in planning and continuous evaluation.

PROGRAM

Scope of the Program

Project Number 0135, "Handicapped Children in the Regular Classroom," served the total district population of students enrolled in the program for the Educable Mentally Retarded and the Educationally Handicapped students at Fulton and Gisler Schools. The program indirectly served all handicapped

children in the district. For instance, educationally handicapped students, visually handicapped students, speech and language impaired students, aphasic and multi-handicapped students were served by in-service presentations, materials and other appropriate placements for these students.

NUMBER OF PARTICIPANTS IN PROGRAM BY HANDICAP

*Educable Mentally Retarded	56
*Educationally Handicapped (at Fulton and Gisler Schools)	26
Educationally Handicapped (at remaining schools)	172
Visually Handicapped (total district)	5
Speech and Language Impaired (total district)	630
Aphasic	6
Multi-Handicapped	12

*Officially in program

The following objectives were developed for the students attending the two project schools, Fulton and Gisler:

1.0 Improvement in academic performance will be demonstrated if the students perform at or above their grade level expectancies as determined by September test scores on the Wide Range Achievement Test (WRAT) in reading and mathematics; and 75% of the students demonstrate at least 75% mastery of the subject matter presented during the school year as measured by project-developed criterion tests.

2.0 Project students will be accepted by classroom teachers in May as well or better than they were in September as measured by teacher ratings on bi-polar adjectives from the evaluative scale of the Semantic Differential; and project students will be accepted by regular classroom students in May as well or better than they were in September as measured by the number of votes received for class offices.

3.0 Improvement in self-concept will be demonstrated if 75% of the project students score the same or higher in May than they did in September on the Stick Figure Test and if 75% of the project students score the same or higher in May than they did in September on the auditory self-concept measuring instrument (ASCMI) and on their measured level of aspiration.

Personnel

The following personnel were added as a result of the project: one Prescriptive Resource Teacher, one half-time Psychologist, one half-time Growth and Developmental Specialist, and one full-time Language Specialist. The role of the Prescriptive Teacher was as a resource teacher. This person worked on the development of new curriculum and as a consultant to the regular classroom and other special education teachers. She also provided instruction directly to pupils assigned her. The half-time Psychologist provided necessary data for the identification and placement of pupils. He also provided counseling and consulting services for pupils, parents and teachers. The Growth and Developmental Specialist gathered developmental information as well as screening data in the areas of vision, hearing and dental. She also provided specialized followup for the handicapped pupils after the Drug Education and Family Life presentations and made information available to families for referrals for medical or social assistance. The Speech and Language Specialist provided services involving assessment, diagnosis, prescription and remediation of speech and language difficulties for the handicapped children involved in the Program.

Organizational Details

"Handicapped Children in the Regular Classroom" was located at Fulton and Gisler Schools. Fulton and Gisler Schools are both open space schools which have classrooms adjacent to learning centers. The learning centers are staffed by Learning Coordinators, Parent Aides and Special Education Resource Personnel. The Learning Coordinators work with students who are not served by other special programs, such as those students in need of remedial reading or remedial mathematics as well as mentally gifted students. The Special Education Resource Personnel work with students who have previously been categorized as Educable Mentally Retarded or Educationally Handicapped. The handicapped

pupils were provided with individual contracts; they would be seen daily for periods from thirty minutes to two hours by the various learning center staff such as Resource Teachers, Speech and Language Specialists and Learning Coordinators. Systematic reviews of each pupil's progress were made during weekly modified day staffings. During these staffings, it was decided whether or not the pupil would need additional services beyond what he was already receiving, or whether or not he would need fewer services. In-service training was provided for Special Education Resource Personnel as well as for regular classroom teachers throughout the district. The in-service presentations typically presented new strategies for teaching handicapped children, as well as introducing teachers and other staff to new materials and techniques available in the field.

Activities or Services

Pupils were seen daily by Special Education Resource Personnel. After morning activities in the regular classroom, the students would be scheduled into the Learning Center to see the Resource Specialist where daily individual contracts were developed. The Resource Teacher would develop new concepts with the child until she was sure that he could manage the activity independently. As the pupil completed each activity of the daily contract, he could check off that activity. After completing an agreed-upon number of activities, the pupil could choose some free time activity in the Learning Center or in a classroom interest center. After checking with his regular classroom teacher, the handicapped child would once again be scheduled into the Learning Center to work with the Special Education Resource Teacher. The Resource Teacher would go over his assignment with him and give him immediate feedback of results as to how the child had done on his assignment. Each week the child could bring

home samples of his completed classroom work to review with his parents. Behavior management systems varied with the child. Some children were at a level where they needed concrete rewards for the completion of tasks, while other children could earn free time activities or the completion of the task alone was rewarding enough. Each of the Resource Teachers at the Project Schools worked with from ten to twelve different students daily. When the Resource Teachers individually conferenced with the child, they typically worked with from two to four different children for each conference period. At time, larger group activities were offered to help the handicapped child learn to participate effectively in larger group settings. Positive reinforcement was perhaps the most useful tool for motivating the students. Regular classroom teachers were trained also to focus in on the positive behaviors in the classroom and to ignore those behaviors which they wished to eliminate.

Instructional Equipment and Materials

Project students were provided with both teacher developed and commercial programs. The following commercial programs have been utilized by the project for the past three years.

Hoffman Reading Program

Description

The Hoffman Reader provides supplemental instruction in the development of reading skills. It has a series of sequential programs presented in a highly attractive style. Up to six students may view and listen to the program at one time. They are provided with worksheets and booklets and are allowed to proceed through each lesson at their own rate. They are also able to chart their own progress as they move through the program.

Evaluation

The Hoffman Program has been utilized by a majority of the project students during this past budget period. The rate at which they proceed through each program is highly dependent upon the frequency of use of the program and the general intellectual level of the student. Educable mentally retarded students proceed at a much slower rate than educationally handicapped or "normal" students. Students generally enjoy working on the Hoffman Reader and are able to acquire the presented reading skills if they are provided with appropriate follow-up by the resource teachers. It should, therefore, not be considered a total reading program, but rather a supplemental reading program which can help motivate students to become interested in reading.

Recommendation

Though not essential for the operation of this project, the Hoffman Reader has proved to be a useful and attractive adjunct to the program.

Symbol Accentuation Program

Description

The Symbol Accentuation Program is designed primarily for non-readers who have been unsuccessful with the traditional phonetic approach to reading. It is not an auto-instructional program, but requires full involvement on the part of the teacher. What it attempts to do is bridge the gap between the symbolic reference and its word symbol. For example, a picture of a window (the referent) transforms into the word window (the symbol) by the use of a Super-8 film loop. It is presented in three phases and gradually helps the students gain phonetic word attack skills.

Evaluation

This year we have only identified ten students (from the Educationally Handicapped Program at two different non-project schools) who have not been able

to learn to read by the traditional phonetic approach. These students have had tremendous success with the first two phases of the Symbol Accentuation Program. They are presently entering the third phase and are experiencing some difficulty in acquiring the sound-blending skills presently being introduced to them.

Recommendations

This program has proven to be an important resource for our teachers when they experience the problem of working with students who cannot grasp the phonetic skills presented in a traditional fashion.

Language Master

Description

One of the most versatile of the audio-visual aids used in our program is the Language Master. It offers pre-packaged commercial educational programs, or the teacher may prepare her own programs on blank cards. The machines allow the subject to see and hear a correct response, record his own response, and compare his response to the correct response. Its operation is simple enough so even our most handicapped students can readily learn to use it.

Evaluation

Our resource teachers have kept daily records on the frequency of use of all of our commercial programs. The Language Master turns out to be the most frequently used of all the programs. When asked to rate our programs in terms of their ability to meet individual student needs, the teachers rated Language Master the highest.

Recommendation

It is highly recommended that Language Master Programs be considered by anyone interested in establishing an integrated special education program for it is so adaptable to a variety of individual needs.

In addition to the above materials, the resource teachers developed their own sequential math program and files for social studies, science and reading activities.

Budget

Income for this program was derived from two different sources: ESEA Title III in the amount of $61,796.00, and from Special Education funds in the amount of $13,890.00 per each Educable Mentally Retarded Class and $1,011.00 per A.D.A. for each Educationally Handicapped Student. The total cost of the program over a period of three years was $301,425.00 as shown below:

Educable Mentally Retarded for 3 years	$178,989
Learning Disabilities Grouping for 3 years	55,560
Educationally Handicapped for 3 years	39,096
Transitional Class for 2 years	27,780
	$301,425

The developmental, implementation and operational costs per pupil which are detailed below were derived from the formula of the total developmental, implementation or operational costs divided by the total number of pupils participating in the program:

PER PUPIL COST DETAIL

ESEA TITLE III
PROJECT 0135

Budget Period: 7/1/71 - 6/30/72

Number of pupils to be directly involved in the project:

EMR - 55

EH - 30

Developmental costs:

Coordinator	$14,251	
Prescriptive Teacher	12,778	
Secretary	8,021	
Clerk	2,573	
Evaluation Consultant	1,000	
Growth & Dev. Specialist	5,207	(1/2 time)
Fixed Charges	3,435	
TOTAL	$47,265	

Developmental costs per pupil:

$556

Implementation costs:

Capital Outlay (the following items were obtained over 3 yrs. on a lease/purchase basis):

Stenorette
Office Chair
IBM Typewriter
4-Drawer File w/Lock
Tape Recorder
Language Master
Language Master Programs
Hoffman Reader & Programs
Symbol Accentuation Program
(including two projectors)

Total cost of the above items	-	$ 7,584
(Cost for 71-72 budget period	-	2,400)
1/2 time Coordinator	-	7,500
1/2 time Clerk	-	2,573
TOTAL		$17,657

Implementation costs per pupil:

$207

Operational costs: *

2 EH LDG Programs	$ 45,120	(at the rate of 1,880/ada)
4 EMR (Resource Teachers)	55,560	(at the rate of 13,890 per class)
1 Transitional (Supplemental Teacher)	13,890	
1/2 time Coordinator	7,500	
1/2 time Secretary	3,838	
1/2 time Growth & Dev. Specialist	5,207	
1/2 time Psychologist	6,000	
Fixed Charges	3,435	
TOTAL	$140,550	

Operational costs per pupil: **

$1,653.52

*Operational costs are based on current estimates of state reimbursement for EMR classes and EH LDG programs.

**Per pupil costs are based on a maximum ADA authorized by the Education Code.

The normal per pupil cost for non-handicapped pupils in the school district is $680.97 compared to $1,654.00 per pupil for handicapped children involved in this program. More detailed budget information may be obtained from the financial report which can be obtained from the State Department of Education ESEA Title III Office after September, 1972.

Parent-Community Involvement

Parents have been actively involved in this Title III Project during Semi-Monthly Parent Meetings and through participation in the Superintendent-Parent Council Meetings and Special Education Chairmen Meetings which are held monthly. The Semi-Monthly Parent Meetings included presentations made by various district staff members as well as presentations made by people from within the community. Topics which were covered during these meetings included the effect of drugs on children with learning problems, the use of contingency management programs for managing children's behavior at home and at school, Rudolf Dreikurs' theory for child management, a movie entitled, "Why Johnny Can't Learn," produced by CANHC, a presentation by the Fountain Valley High School Special Education Department on what high school has to offer children with special learning problems, a presentation by Special Education Students from a neighboring high school district who had been involved in a vocational education program, an experience of learning to read all over again entitled, A Primer for Parents, an open forum on how to improve existing special education

services, a presentation to a neighboring school district by our parents on integrated special education and what it has to offer, and various other topics of prime concern to our parents.

Parents in the community were kept informed of various new aspects to our Special Education Program through the Special Education Chairman at each of the schools. Articles were written in the school newsette and in a district publication entitled, "Up With Kids." The local newspaper, "The Daily Pilot," as well as "The Los Angeles Times" presented feature articles on the Special Education Programs in the district.

Special Factors

The Special Education Model which was developed during these past three years is quite flexible and lends itself to numerous adaptations. The open structure buildings and learning centers in the Fountain Valley School District are almost an ideal setting for this type of special education program, however it is the opinion of the staff involved in the project that this program could also function quite adequately in a more traditional school building. Portable buildings or empty classrooms could be used as learning centers for the entire student body. The most important contingency for the successful adaptation of this program is a commitment on the part of the staff to the basic philosophy that all children are different and that all children should be provided with individualized programs to meet these individual differences. The program could be gradually phased in utilizing those teachers or staff who have made a commitment to the basic philosophy of this program. The Special Education Teacher would gradually shift her role from classroom teacher to resource specialist as her children are gradually integrated into the regular classroom program. Public

acknowledgement of the successes of those participants in the program will soon yield requests by more and more teachers to participate in the program. The Fountain Valley School District presently has a waiting list of teachers desiring to participate in some aspect of its Special Education Program.

EVALUATION

Choosing Participants

Children were selected to participate in this project by qualifying for admittance into the program for Educable Mentally Retarded or Educationally Handicapped. Because of community preference, all children who met these qualifications were allowed to participate in the program. Participants left the program for a number of reasons including moving out of the area, achieving at grade level expectancy or exceeding cut-off criterion on individual intelligence tests which are administered yearly. The number of participants in the program has remained fairly stable over the last three years; that is, approximately the same number of students who left the program were also admitted to the program. Evaluation of the project was conducted yearly on the basis of pre- and post-tests administered to all project participants.

Describing Participants

All of the participants in the program at the initiation of the project were achieving at least two years below grade level and had been averaging approximately three months' gain in grade equivalent units per year. At the beginning of the third and final phase of the project, the students enrolled in the program were expected to gain between 4 and 8 months' grade equivalent units per year based on their pre-test scores.

The following formula was utilized to determine expected gain:

$$\frac{\text{Pre-test G.E.}}{\text{C.A.} - \text{E.A.}} \quad *$$

Of the 90 participants in the project this year, 59 were enrolled in the EMR program and 31 were enrolled in the EH program. The ages of the students in the EMR program ranged from 6 years 2 months, to 14 years, 5 months; and for those in the EH program from 6 years, 8 months, to 13 years, 2 months. The students were enrolled in grade levels kindergarten through 8. The mean Full Scale IQ for EMR students was 71. IQ tests were not given this past year to students enrolled in the program for the educationally handicapped.

Measuring Changes

Pre and post-measures were applied to determine whether or not the specific goals and objectives of the project were achieved. Instruments were used for each of the three major areas of assessment: academic achievement, student and teacher acceptance, and self-concept. All instruments were selected on the basis of appropriateness of use for the handicapped population with which this program dealt. All measurement was carried on by project staff and therefore it was unnecessary for specially trained observers or technicians to be used. Pre and post-tests were administered in the 8 months between October and May or November and June.

*Where C.A. equals the subject's chronological age at the time of the pre-test and E.A. is equal to the subject's chronological age when he entered school.

Presenting Data

Raw scores, standard scores when applicable, and grade equivalent scores were collected for each of the participants enrolled in the Title III program. Means and standard deviations were the primary measures of central tendency and dispersion which were used. Academic achievement was presented in terms of grade equivalent pre-test scores and expected grade equivalent scores which were calculated using the formula previously described. Raw scores, means and standard deviations were also collected for each of the affective variables measured.

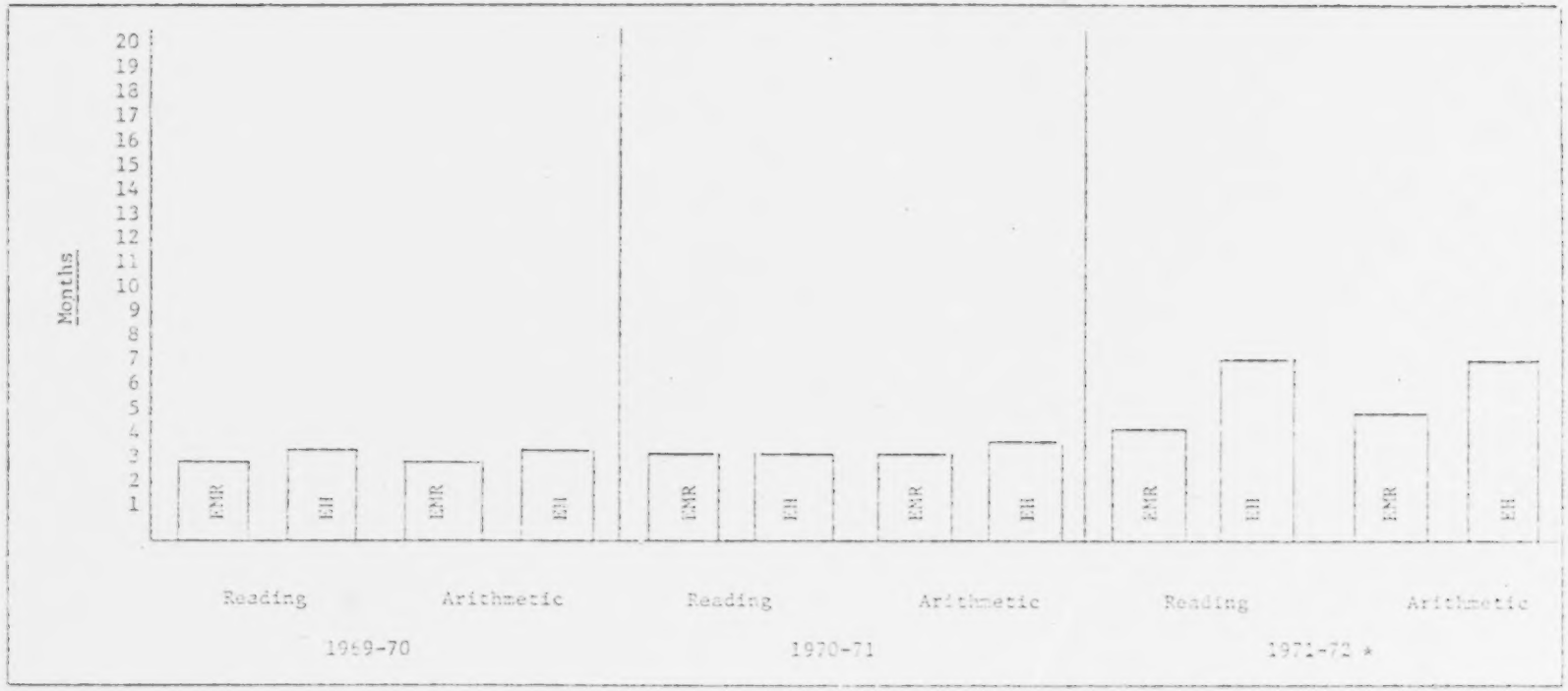
Figure #1 on the following page indicates the mean expected grade equivalent scores obtained by project students over the past 3 years in the academic areas of reading and arithmetic.

Analyzing Data

Five different statistical procedures were undertaken to determine whether or not specific project objectives were met: (1) the percentage of students meeting a specific criterion for stated objectives; (2) a *t*-test for correlated means; (3) a *t*-test for independent means; (4) a one-way analysis of co-variance; and (5) a multiple-regression analysis. The procedure for the percentage of students meeting specific criteria was applied to variables in Objectives 1 and 3. *t*-tests for correlated means analyzed the differences between pre and post tests and the differences between expected and actual grade equivalent scores. *t*-tests for independent means compared groups on mean grade equivalent gains. The one-way analysis of co-variance procedure tested the significance of the difference between post-tests mean scores adjusted on pre-test mean scores.

FIGURE NUMBER 1

DIFFERENCES IN MEAN EXPECTED GRADE EQUIVALENT SCORES FOR EMR AND EH STUDENTS
IN READING AND ARITHMETIC DURING A THREE YEAR PERIOD



* expected grade equivalent scores were calculated differently
in 1971-72 giving slightly higher expected grade equivalents

The multiple-regression analysis predicted grade equivalent gain scores in academic achievement and post-test scores for affective variables.

Major Project Goal

It was the intent of this project to (1) integrate into regular classrooms all of the educable mentally retarded and educationally handicapped students in the Fountain Valley School District within three years and (2) to develop a system to provide the special education resource teachers continuous feedback on pupil progress to insure that each student will be involved in an appropriate educational program.

Results:

At the conclusion of the third and final phase of this project, all handicapped students (educable mentally retarded or educationally handicapped) were successfully integrated into regular classroom programs. A daily individual contract system was developed by the resource teachers for continuous monitoring of the academic and social progress of each of the students. Also, specific behavioral objectives were developed for each of the commercial programs used in the project which enabled resource teachers to monitor pupil progress through each of these programs.

Project Objectives and Findings

Project outcome objectives were developed in order to assess the academic, social and affective growth of each of the students participating in this program. The following objectives were developed:

1.0 Improvement in academic performance will be demonstrated if 75% of the students perform at or above their grade level expectancies as determined by September test scores on the Wide Range Achievement Test (WRAT) in reading and mathematics; and 75% of the students demonstrate at least 75% mastery of the subject matter presented during the school year as measured by project-developed criterion tests.

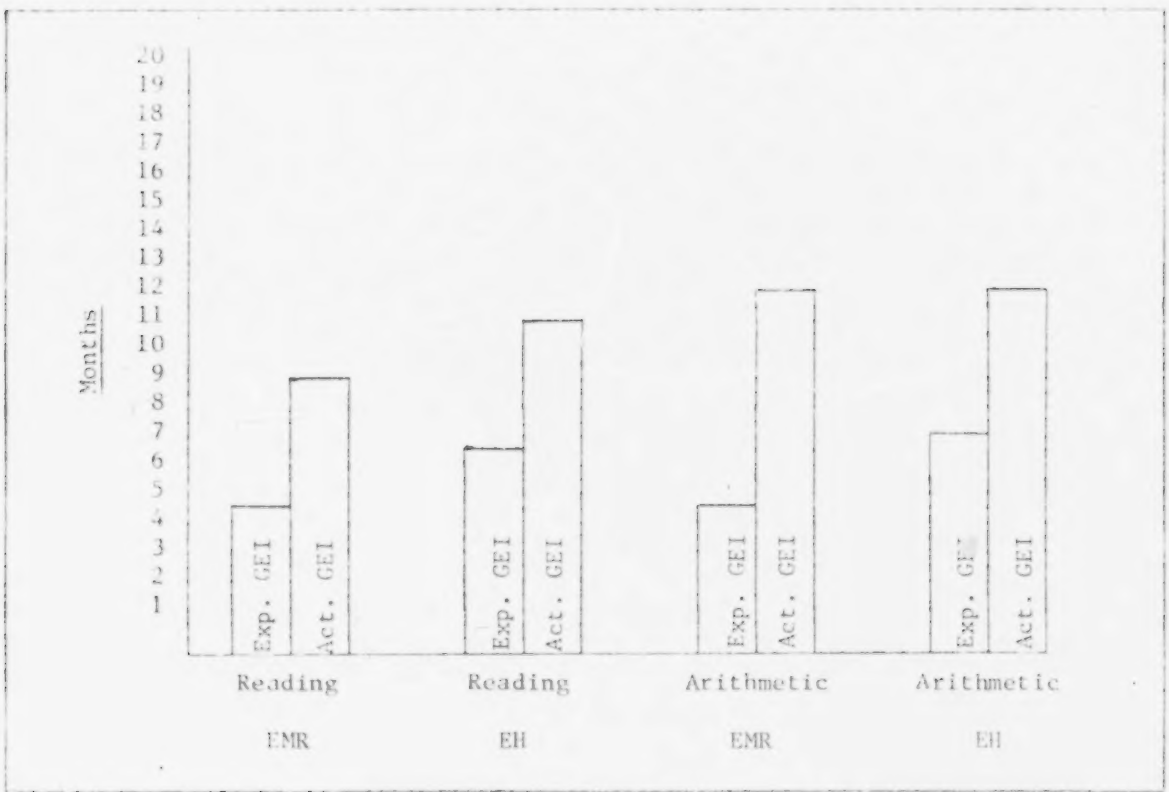
The results of these objectives were as follows: 81% of the students met or exceeded their expected grade equivalent increase in reading; 89% of the students met or exceeded their expected grade equivalent increase in mathematics; 100% of the students met the expected criterion on the reading criterion tests; and 90% of the students met the arithmetic criterion on project-developed measures.

During this phase of the project, students enrolled in the program for Educable Mentally Retarded were expected to achieve five months' growth in reading: their actual gain was nine months which was significant at the .01 level. These students had an expected achievement gain of five months in arithmetic; their actual gain was twelve months which was also significant at the .01 level. The students enrolled in the program for Educationally Handicapped were expected to achieve seven months' growth in reading; their actual gain was eleven months, which was non-significant. These students had an expected achievement gain of seven months in arithmetic; their actual gain was twelve months, which was significant at the .05 level (Refer to Figure 2, following page). All handicapped students demonstrated significant increases in academic performance between pre and post-tests.

When comparisons were made between educable mentally retarded students and educationally handicapped students on their academic growth, no significant difference was found. Also, there were no significant differences between the performance of handicapped students at Fulton and Cisler Schools. However, there were significant differences found between educable mentally retarded

FIGURE NUMBER 2

EXPECTED AND ACTUAL GRADE EQUIVALENT INCREASES (GEI) FOR EMR AND EH STUDENTS IN READING AND ARITHMETIC



and educationally handicapped students in terms of the number of minutes of individual instruction provided daily for these groups, where significantly more time was spent with the EMR students vs. the EH students at Fulton School. A multiple-regression analysis was performed to determine which of the independent variables were the most efficient predictors of academic success. The number of days a pupil was enrolled in the program and the number of hours per day of individual instruction had a multiple R coefficient of 0.58 with academic success in reading. The number of days in the program and the students expected grade equivalent score in reading had a multiple R coefficient of 0.68 with academic success in arithmetic. There was no significant correlation between academic success and IQ scores obtained by the handicapped children enrolled in this program.

2.0 Project students will be accepted by classroom teachers in May as well or better than they were in September as measured by teacher ratings on bi-polar adjectives from the evaluative scale of the Semantic Differential; and project students will be accepted by regular classroom students in May as well or better than they were in September as measured by the number of votes received for class office.

There was no significant difference in the mean values obtained by project students and non-project students when rated by teachers on the evaluative scale of the Semantic Differential. Ratings for all students tended to be somewhat higher than the scale's mid-point which indicated that teachers looked at all students in a positive manner. Some differences were found when individual bi-polar adjectives were analyzed separately. For example, when the bi-polar adjectives kind and cruel were rated by regular classroom teachers, the handicapped pupils at one of the project schools tended to be looked at as less kind than their normal peers at the end of the school year. Also, on the nice-awful bi-polar adjective, the educationally handicapped students at one school were viewed significantly more favorably than the educationally handicapped students

at the other school. On the bi-polar adjective wise-foolish, the handicapped population at one of the project schools was viewed as less wise than the normal non-handicapped students. However, these three significant comparisons out of eighty-eight different analyses could have occurred by chance alone and therefore, these findings may be considered as not significant.

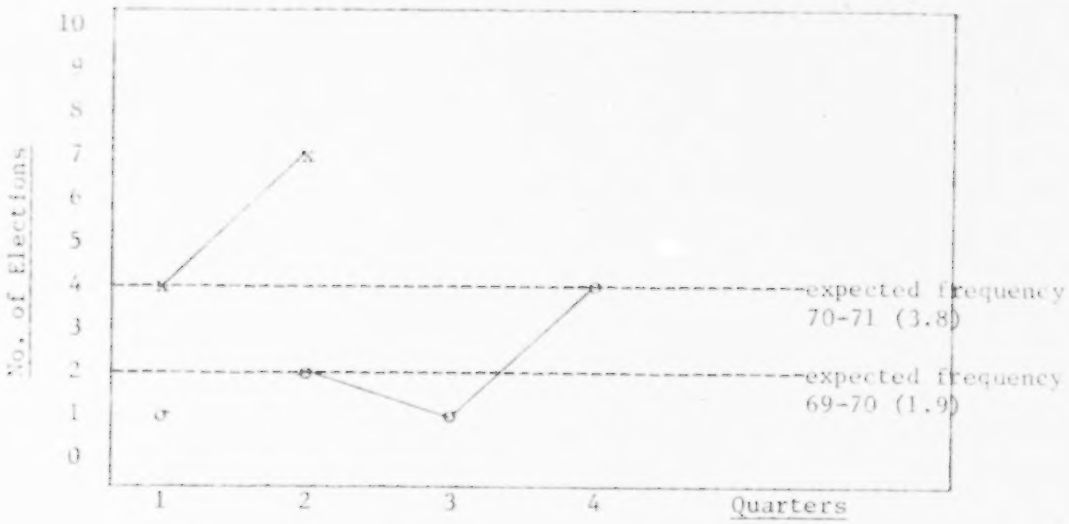
Figure #3 on the following page shows the acceptance of project students by non-project students which was analyzed during the first two quarters of school by comparing expected frequency of classroom elections with actual frequency. During the first quarter, the number of project students elected to class office was equal to the expectancy of "normal" students being elected. Teachers decided during the last two quarters that they no longer wanted to hold classroom elections. In order to determine how well the project students were getting along with their non-project peers, interviews were used. The teachers polled indicated that project students were invited to participate in classroom activities with approximately the same frequency as non-project students. When new students came into the classroom, there was a tendency toward some over-indulgence. The overall tendency, however, was that there was no difficulty in having project students accepted by their "normal" peers.

3.0 Improvement in self-concept will be demonstrated if 75% of the project students score the same or higher in May than they did in September on the Stick Figure Test and if 75% of the project students score the same or higher in May than they did in September on the Auditory Self-Concept Measuring Instrument (ASCMI) and on their measured level of aspiration.

The following percentages of students met or exceeded the criterion on each of the following measures: On the Student Questionnaire, 57% of the EMR students and 19% of the EH students met the criterion. On the Stick Figure Test, 61% of the EMR and 20% of the EH students met the criterion. On the Auditory Self-Concept

FIGURE NUMBER 3

NUMBER OF STUDENTS ELECTED TO CLASS OFFICES AT FULTON SCHOOL



o = 1969-70 School Year
x = 1970-71 School Year

Measuring Instrument, 55% of the EMR students and 38% of the EH students met the criterion of the evaluative scale, and 55% of the EMR students and 69% of the EH students met the criterion of the Dynamism Scale. On the Level of Aspiration measure, 59% of the EMR students and 53% of the EH students met the criterion. The intent of the objective was to determine whether or not there were significant differences between pre and post tests or between handicapped groups on these affective measures. On the Student Questionnaire there was a significant difference between pre and post-tests for EH students in the program where these students tended to get significantly lower scores at the year's end. This finding was also true of EH students on the Stick Figure Test. There were no significant differences between pre and post tests on the ASCMI Evaluative or Dynamism Scale. However, on the Level of Aspiration measure, EMR students tended to have significantly lower levels of aspiration at year's end. When differences were looked for between groups on each of the affective measures, the following results were obtained: On Student Questionnaire, EMR students obtained significantly higher scores than EH students. This was also true of the Stick Figure Test. There were no significant differences found between groups on the other affective measures.

It would appear from these analyses that EH students tended to view school and school related activities in a less favorable way at year's end when compared to themselves on pre tests or when compared to EMR students. However, there was generally no significant differences between pre and post measures or between groups on each of the measures for a majority of the affective instruments employed. Evaluation of individual scores obtained by the students on each of the instruments indicated that the students tended to obtain scores at the positive end of the continuum on each measure. Differences which were found, therefore, were differences between very high and high scores on each

of the variables. Thus, it would appear that the handicapped pupils have a generally favorable outlook on themselves and on school and school related activity with a slight trend for educationally handicapped students to become more negative towards school and school related activities throughout the year.

A multiple-regression analysis to determine the most efficient predictors of positive student responses on these affective measures were as follows: For positive responses for students on the Student Questionnaire, the best predictors were Full Scale IQ and their Expected Grade Equivalent Score in arithmetic. The best predictors for positive student responses on the Stick Figure Test were Full Scale IQ and Expected Grade Equivalent Scores in reading. On the ASCMI, which yields two scores, an Evaluative Score and a Dynamism Score, the number of days in the program and Verbal IQ were the best predictors of high Evaluative and Dynamism Scores.